REMARKS

There are now pending in this application Claims 1-3, 8, 10-17, 19-25, 27-31, 36, 38-45, 47-53 and 55-58. Claims 4-7, 9, 18, 26, 32-35, 37, 46, and 54 have been cancelled without prejudice or waiver of their subject matter. No claims have been added. Claims 1, 3, 14, 20-22, 28, 29, 31, and 56-58 are independent.

In view of the above amendments and the following remarks, favorable reconsideration and allowance of the above application is respectfully sought.

In the outstanding Official Action, each of Claims 1-58 stand rejected under 35 U.S.C. § 102(e), as being anticipated by Ohtsuki, et al. (U.S. Patent No. 6,155,668). In view of the above amendments and the reasons which follow, the rejections are respectfully traversed.

Applicants' invention as featured in independent Claims 1, 3, 14, 29, 31, 57 and 58 relates to multi-task printing, in which a printing head scans a plurality of times on the same line of a printing medium so that different printing elements are used in the plurality of scans to form dots on the same line. In accordance with the present invention as set forth in the above claims, the multi-task printing is performed for both a first area and a second area of feeding of the printing medium, the first area being an area of high feeding accuracy and the second area as being an area of low feeding accuracy. In addition, while the same number of plurality of scans are performed for the first and second areas but when distributing dot data among the plurality of scans, distributing ratios are different between the first area and a second area.

Accordingly, the present invention as set forth in each of Claims 1, 3, 14, 29, 31, 57 and 58 is featured in that when distributing dot data among the same plurality of scans,

distributing ratios are different between the first area and the second area, and are different even though the same number of scans are executed in the first and second area.

The invention as recited in the aforementioned claims is believed to be departure from that utilized in the prior art. In general, the distributing ratios of the mask patterns has in the past depended on the number of scans, and therefore, when the number of scans is changed, the distributing ratio is also changed. For example, if the number of scans of the second area is made greater than that of the first area, the distributing ratios are different between the first and second areas. When the number of scans is not changed, the distributing ratios are also not changed and therefore, when not changing the number of scans, persons of ordinary skill in the art will have no motivation to then proceed to change the distributing ratios.

The present invention was made with an eye toward a configuration that is able to control a decrease in print quality in the second area while preventing a decrease in print speed that would normally be caused by making the number of scans of the second area greater than that of the first area. To accomplish this, the inventors have incorporated the features of the distributing ratios being changed between the first and second areas while the number of scans is not changed.

Ohtsuki, et al. is directed to a device in which recording of dots is carried out by the interlace method with a reduced number of working nozzles in a second area which decreases each amount of sub-scan and thereby reduces the error in sheet feeding. The method of enabling each raster line to be formed with different nozzles or the method creating large dots having a greater diameter may also be applied to form raster lines in the second area. Ohtsuki, et al. discloses a configuration that decreases a feeding amount of the printing medium upon

printing for a second area, in which feeding accuracy is not assured, in comparison the case of printing for the first area in which feeding accuracy is assured. By this configuration, print quality of the second area is said to be improved. (See, Figures 15, 32, and 36 of Ohtsuki, et al.). However, in the embodiments shown in these figures, each line on the first area, in which the feeding accuracy is assured, is printed by using a single nozzle, and therefore the first area is not subjected to multi-task printing. Moreover, there are no mask patterns for the first area because only one nozzle is correspondingly used for printing each line. As such, the method disclosed in the embodiments of Figures 15 and 32 differ from those of the present invention.

Figure 36 of Ohtsuki, et al. shows two nozzles which are corresponding used for printing each of the first and second areas. The two nozzles are made to correspond to one line of the first area while a printing head scans twice so as to print that line using the corresponding two nozzles. However, three nozzles are made to correspond to one line of a second area while a printing head scans three times to print that line using two nozzles from among the corresponding three nozzles. That is, two nozzles are used for printing both first and second areas. However, two scans are performed for the first area and three scans are performed for the second area. Thus, the embodiment of Figure 36 changes the number of scans between the first area and the second area and therefore differs from the configuration of the present invention. Moreover, the embodiment of Figure 36 decreases the print speed, because the number of scans for the second area is greater than that for the first area.

Applicants respectfully submit that it is clear that Ohtsuki, et al. does not teach or suggest changing the distributing ratios between the first and second areas while keeping the

number of scans the same between those areas. Accordingly, there is no teaching or suggestion of the invention as recited in the above claims.

Applicants' invention as featured in independent Claims 20-22 each recite features believed lacking in disclosure or suggestion in Ohtsuki, et al. The invention as set forth in Claim 20 is featured in that process is using an index pattern different between the first and second areas. As set forth in Claim 21, error diffusion processes are different between the first and second areas, and as set forth in Claim 22, dither processes are different between the first and second areas.

Ohtsuki, et al. is not understand to teach or suggest that any of the processes using an index pattern, error diffusion or dither processes being different as compared between the first and second areas. It is therefore not seen how this reference can teach or suggest the invention as recited in Claims 20, 21, or 22.

Claims 28 and 56 are featured in that printing elements used for printing are sifted between the first and second areas without changing the number of printing elements used for printing. In contrast, Ohtsuki, et al. discloses that the number of printing elements used for the first area is greater than that for the second area and therefore does not disclose or even suggest the invention as featured in Claim 28.

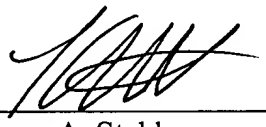
For the foregoing reasons, Applicants respectfully submit that each of the independent claims in the above application is distinguishable over the applied art of record. The remaining claims in the above application are dependent claims which depend either directly or indirectly from one of the above-discussed independent claims and are therefore patentable over the art of record for reasons noted above with respect to those independent claims. In addition,

each recite features of the invention still further distinguishing it from the applied art. Favorable and independent consideration thereof is respectfully sought.

Applicants respectfully submit that all outstanding matters in the above application have been addressed and that this application is in condition for allowance. Favorable reconsideration and early passage to issue of the above application is respectfully sought.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



Lawrence A. Stahl
Attorney for Applicants
Registration No. 30,110

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

LAS:eyw

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